Docket No. ONDAT-015CUS

REMARKS

Claims 1 and 6 have been amended. Claim 9 has been cancelled. Support for the claimed limitation that nothing is connected to the second openings (the lower opened portions 31) can be found in the specification, including page 8, lines 1-14, page 9, lines 24-27, and page 10, lines 19-25 and Fig. 1.

The hot plate unit according to the present invention includes a casing (2) including a bottom (2a) having a plurality of second openings (31). The second openings lower the weight of the casing, lower the heat capacity of the casing, and improve discharging efficiency of cooling fluid. Further, no additional member, which has heat capacity and lowers cooling speed of the casing, is connected or coupled to the second openings. This configuration provides improved cooling speed and reduces re-heating of the hot plate by radiation heat from the bottom of the casing.

None of the cited prior art references indicates any recognition of the problem that a casing having a relatively high heat capacity re-heats the hot plate and lowers cooling speed of the hot plate unit. Indeed, no prior art of record discloses and suggests that a light-weight and low-heat capacity casing can improve the cooling speed of a hot plate unit. Therefore, there is no motivation to combine the references to improve the cooling speed of the hot plate unit by lowering heat capacity of the casing.

Ito et al. (US 6,072,162) does not suggest lowering the heat capacity of a frame 19. For example, no openings are formed in the bottom of the frame 19 of Fig. 1. In the embodiment of Fig. 16, a gas exhaust port 18, which has heat capacity and lowers cooling speed of the frame, is connected to the bottom of the frame 19. This structure cannot prevent re-heating by radiation heat of the frame.

Shinji et al. (JP62169330) does not suggest lowering the heat capacity of a casing 4, 8. For example, an exhaust pipe 12, which has heat capacity and lowers cooling speed of the casing, is connected to the side of the casing. This structure cannot prevent re-heating by radiation heat of the casing.

Fujikawa et al. (US 5,595,606) does not suggest lowering the heat capacity of a chamber 28. For example, an exhaust port 48, which has heat capacity and lowers cooling speed of the chamber, is connected to the bottom of the chamber 28. This structure cannot prevent re-heating by radiation heat of the chamber 28.

Moore et al (US 5,683,518) does not suggest lowering the heat capacity of a reaction chamber 209, 301. For example, an outlet channel 101 (Fig. 2) or a gas exhaust pipe 309a, 309b (Fig. 3), which has heat capacity and lower cooling speed of the chamber, is connected to the bottom of the chamber. This structure cannot prevent re-heating by radiation heat of the reaction chamber 209.

Accordingly, all claims are believed to be in condition for allowance. Issuance of a Notice of Allowance is earnestly solicited.

Respectfully submitted,
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I hereby certify that this correspondence is being transmitted via facsimile to the United States Patent Office at (703) 872-9306 on February 7, 2005 and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: February 7, 2005 By: Francine Sanders, Assistant